

DIMINISHING MANUFACTURING SOURCES AND MATERIAL SHORTAGES (DMSMS) WORKING GROUP CHARTS

RELATIONSHIP

DMSMS, parts obsolescence or non-availability of parts provides a justification to enter into a modernization through spares opportunity. Modernization means bringing an item up to date. Usually, a reason to initiate an activity needs to be justified.

Obsolescence/non-availability means an item is out of date due to old technology or no demand in the market place. The DMSMS arena provides this justification better than any other excuse to initiate an action to change a design. Other benefits such as improved performance, improved reliability, etc. may result.

VISION

The DMSMS assessment of a part or system provides an indicator of what parts need to be modernized. This outlook then provides time to react in a cost effective and timely manner. The Modernization through Spares program may greatly benefit from a marriage with the DMSMS program concept and initiatives.

BARRIERS

Funding to make changes continues to be a problem and undefined for DMSMS and will also be a problem for the Modernization through Spares program. Even though there are programs such as OSCR, Value Engineering, Technology Insertion, Horizontal Technology Insertion, etc., the criteria for obtaining money through these programs does not specifically state that DMSMS or MTS initiatives may be funded with these programs.

If we modernize spare parts, we need to modernize the rest of the system also. The MTS could be perceived as only addressing those items that are spared. A solution may be to extend the concept to those items that may be a part where a spare part contributes to it's function.

Communications is always a barrier and needs to be a major management area in order to avoid duplication or throw away costs due to upcoming known changes that are not necessarily visible to those managing spares. Resources and time is too precious to be wasted.

Even though each branch of the services manages obsolescence differently and predicts the obsolescence/DMSMS using a variety of means, no overall DoD predictive model exists nor is provided. All interested parties needs to be using the same prediction tools and have access to the same data bases which provides this type of information. This does not exist today but needs to.

Most of the DMSMS problems are in the electrical area and methodologies and attention has certainly been given primarily to this area. However, areas such as chemicals, metals, mechanical components such as starters, generators, motors, etc. are also becoming obsolete due to changing technology, environmental regulations, and diminishing specialized sources and need to be addressed.

Acquisition methodology to buy competitively, small quantities, etc. can not be the norm for parts which are obsolete or going obsolete. You have to get when the getting is good. Presently, acquisition personnel don't think like this.

A trade off analysis model is needed to determine at what level do you modernize a part or system to get the biggest bang for the buck. Even though this may seem obvious, a lot of factors need to be considered when trying to determine how much to take on when changes are coming about.

METHODS

The assessment of the state of obsolescence of a part needs to be a criteria for selecting a spare part candidate for modernization purposes. Likewise, a success/measurement criteria needs to be established which uses obsolescence/DMSMS mitigation as an indicator.

RECOMMENDATIONS

Due to obsolescence potential, we need to establish longer running contracts to force suppliers and vendors in selecting technologies which can be spared and available for as long as possible. Short term contracts provides what is available today and will require another change in the future (at the next buy) which means higher expense to the Government which can't be afforded. We need to put a special clause relating to technology insertion into all spare contracts. This is done on a limited basis today.

If this program is important, establish seed money or funds to motivate a program manager or contractor to modernize for the long term. Making these changes sometimes involves a lot of risk which is not favorable unless it is profitable. Put the money where the spoken word is by using funds from previous savings obtained due to a program manager's good work. Don't just remove all the savings, give some of it back to kick off other potential good initiatives for modernization.

When changes are being made, a total business process plan is required. We don't need to be narrow focused. All areas impacted today and future needs to be considered when making changes. We have an established business process engineering methodology, and it needs to be used here and other opportunities where change is needed.

We need more automated up to date information to tell us what sourcing availability exists. This is specially needed in the non-electrical areas as previously described.

If this initiative was important enough to spend the time and effort to put on a conference about, then AMC, DA and DoD needs to take a look at the result and do something with it. If nothing is done with these recommendations coming out of the conference, then it has been wasted time and resources.